

**CLAIMS**

We claim:

5           1. A method of treating a human or animal having undesirable cell proliferation comprising,

10           administering to the human or animal a sufficient amount of a composition comprising tissue factor pathway inhibitor to inhibit the undesirable cell proliferation.

10           10       2. The method of Claim 1 wherein the undesirable cell proliferation is undesirable endothelial cell proliferation.

15           15       3. The method of Claim 1 wherein the undesirable cell proliferation is an angiogenesis-related disease.

20           20       4. The method of Claim 3, wherein the angiogenic-related disease is a disease selected from the group consisting of cancer, arthritis, macular degeneration, and diabetic retinopathy.

25           25       5. The method of Claim 1 wherein administration of the composition inhibits angiogenesis.

30           30       6. The method of Claim 1 wherein the tissue factor pathway inhibitor is a protein or peptide having the amino acid sequence set forth in SEQ ID NO. 1, a homolog thereof, or an anti-proliferative fragment thereof.

35           35       7. The method of Claim 6 wherein the homolog is a protein or peptide having the amino acid sequence set forth in SEQ ID NO. 2 or an anti-proliferative fragment thereof.

8. The method of Claim 6 wherein the anti-proliferative fragment contains the Kunitz-3 domain or a fragment thereof.
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9. The method of Claim 7 wherein the anti-proliferative fragment contains the Kunitz-3 domain or a fragment thereof.
- 10 10. The method of Claim 1 wherein the composition comprises tissue factor pathway inhibitor and a pharmaceutically acceptable excipient, carrier or sustained-release matrix.
- 15 11. A composition for inhibiting cell proliferation comprising tissue factor pathway inhibitor in a pharmaceutically acceptable carrier.
- 20 12. The composition of Claim 11, wherein the tissue factor pathway inhibitor comprises an active fragment of tissue factor pathway inhibitor, wherein the active fragment inhibits cell proliferation.
- 25 13. The composition of Claim 12 wherein the active fragment inhibits endothelial cell proliferation.
14. The composition of Claim 12 wherein the active fragment inhibits angiogenesis.
- 30 15. The composition of Claim 12 wherein the active fragment inhibits angiogenesis-related disease.

16. The composition of Claim 15, wherein the angiogenic-related disease is a disease selected from the group consisting of cancer, arthritis, macular degeneration, and diabetic retinopathy.

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17. The composition of Claim 12 wherein the active fragment is a peptide having an amino acid sequence within the amino acid sequence set forth in SEQ ID NO. 1.

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18. The composition of Claim 12 wherein the active fragment is a peptide having an amino acid sequence within the amino acid sequence set forth in SEQ ID NO. 2.

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19. The composition of Claim 11 wherein the active fragment contains the Kunitz-3 domain or a fragment thereof.

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20. The composition of Claim 10, wherein the carrier is a sustained-release matrix.